Overview

Teaching Through Problem-Solving ("TTP") rests on both **mathematical** and **instructional** knowledge. Some of this knowledge is specific to the mathematical topic–for example, knowledge of how area develops in later mathematics and how students interpret area. Step-by-step support helps you build that knowledge systematically, as you study and plan a series of TTP lessons on area, using the lesson plan template [please rename this link "instructional plan template" <-- Catherine, should this link go to "Lesson Plans" or "Unit Plan"? And is that the same link you'd like me to rename?] to record your thinking. The steps are designed to support a lesson study group or PLC, or an individual teacher, to use Teaching Through Problem-Solving for area. Plan on 8 hours or more to study the materials and shape your unit.

If you want a quicker glimpse at TTP in action, begin by watching a brief video segment from Akihiko Takahashi's teaching of an area unit. Catherine, what is missing before this video? Do you want a different edit of this video (from Shelley) or do you want me to add two videos?

Can You Find the Area? – Video Segment 2 from Shelley Friedkin on Vimeo.

The video highlights both specific understandings of area and broader mathematical practices and habits of mind that students are expected to develop. You might want to approach this video with a question that Dr. Takahashi often asks colleagues: "What do you want your students to learn?" The video may jumpstart your thinking about the understandings of area, and the broader mathematical practices (such as making sense of problems) that you want your students to learn.

Dr. Takahashi's instructional plan provides fuller information about the goals for student learning in this series of three lessons.